

DEVELOPMENT OF A DISABLED ACCESS PLAN  
FOR THE HIGHLAND SCENIC HIGHWAY

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## ABSTRACT

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TITLE: Development of a Disabled Access Plan For  
The Highland Scenic Highway

ABSTRACT: The Highland Scenic Highway is located on the  
Gauley and Marlinton Ranger Districts of the  
Monongahela National Forest. It is designated a  
National Scenic Byway, and offers a variety of  
recreation opportunities.

Facilities and resources along the highway were  
evaluated for disabled accessibility. The  
evaluation concluded there are no facilities  
completely accessible to the disabled.

Recommendations are made to adapt facilities for  
barrier-free access and to develop additional  
recreation opportunities for the disabled. The  
objective is to make the highway a total access  
facility which offers disabled visitors the same  
opportunities available to able-bodied customers.

Keywords: Disabled Access, Handicapped Access, Highland Scenic  
Highway, National Scenic Byway

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EXECUTIVE SUMMARY

Title: Development of a Disabled Access Plan for the  
Highland Scenic Highway

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Summary: The objective of this project was to evaluate the facilities and resources of the Highland Scenic Highway (HSH) and to recommend a plan to make the HSH a total access facility.

The HSH is located on the Gauley and Marlinton Ranger Districts of the Monongahela National Forest, and was designated a National Scenic Byway in 1988. A variety of facilities and resources are offered on the HSH, including a Ranger station, visitor center, two campgrounds, picnic areas, a botanical area, waterfalls, a wilderness area, scenic overlooks, and numerous hiking trails.



An evaluation of these areas was conducted to determine which areas are accessible to the disabled. This process began with a meeting of Forest employees and representatives from organizations for disabled persons. This group recognized the potential to manage the HSH as a barrier-free facility providing a range of recreation opportunities to all Forest visitors.

The Forest landscape architect provided training in surveying facilities for accessibility. All facilities and recreation opportunities available on the HSH were surveyed. Results of this survey indicate there are no facilities completely accessible to the disabled.

Recommendations are made to adapt facilities for barrier-free access, and to develop additional recreation opportunities for our disabled customers. Priorities for action are suggested, based on current use and potential to serve customers.

As a barrier-free facility, the HSH will offer our disabled visitors the same range of recreation opportunities available to able-bodied customers.

## II. INTRODUCTION

The Monongahela National Forest is committed to the ideals of the National Recreation Strategy (NRS).

The NRS goal to create customer satisfaction is receiving special attention on the Forest. One element of that goal is to provide outdoor recreation opportunities to all Forest visitors, including the disabled and disadvantaged, the elderly, and the very young. To achieve that goal, the Forest has been constructing or rehabilitating several major facilities across the Forest. These facilities are designed for use by all Forest visitors.

The Forest is also in the process of evaluating all existing facilities for barrier-free access. The evaluation began in July 1989, when representatives of the National Spinal Cord Injury Association and Handicapped United of West Virginia visited several areas on the Forest. This group, along with Forest Service employees, surveyed accessibility at several facilities and made recommendations for barrier-free improvements. Eventually, all facilities on the Forest will be evaluated for accessibility. The final product of this evaluation will be a Forest-wide guide describing accessibility at all Forest facilities.

The Highland Scenic Highway (HSH) on the Marlinton and Gauley Ranger Districts was one of the areas visited by the evaluation group. As the group toured the highway, they saw the potential to manage the HSH as a barrier-free facility, as opposed to a highway joining a few accessible attractions. This suggestion led to the idea of developing a barrier-free plan for the HSH.

III. OBJECTIVE

The objective of this project is to develop an integrated plan for barrier free access to the facilities and resources of the HSH.

The plan builds on the concept of making the highway a total access facility, by recommending improvements to existing facilities and proposing new recreation opportunities for disabled users. The intent is to offer disabled users the same spectrum of traditional recreational opportunities available to able bodied users of the HSH.

One element of this project, the inventory of existing facilities, will be incorporated into a Forest-wide guide for disabled users.

#### IV. REGULATIONS AND POLICIES

Federal laws and Forest Service regulation and policies for handicapped accessibility set very clear direction for the management of National Forest resources and facilities. A list of pertinent guidelines follows:

##### Architectural Barriers Act of 1968

This law was written to ensure that all Federally funded buildings and facilities be accessible to persons with disabilities. It deals primarily with Federal buildings constructed or modified as of 1968, but covers Forest Service campgrounds and similar facilities as well.

##### Rehabilitation Act of 1973, Section 504

Section 504 of this Act, amended in 1978, prohibits discrimination against disabled persons in programs, services, or activities offered by any Federal agency. Essentially, the law requires that programs and facilities be, to the highest degree possible, accessible and usable by all persons with disabilities, including mobility, visual, hearing, or mental impairments.

##### Forest Service Manual Direction

The 2300 section of the Forest Service manual contains many references to accessibility of recreation facilities and programs. These references are displayed in Appendix A.

##### The National Recreation Strategy

This document states the Forest Service will, "provide outdoor recreation opportunities to all the people, strengthening our service to urban residents, ethnic minorities, the disabled and disadvantaged, and the elderly and the young."

## Eastern Recreation Strategy

This Strategy directs R-9 Forests to improve customer satisfaction by:

- "strengthening our service to urban residents, ethnic minorities, the disabled, disadvantaged, the elderly, and young."
- "eliminate design barriers that prevent some groups such as the elderly, disadvantaged and handicapped from recreating on the National Forest."
- "involve various user groups, e.g., handicapped and ethnic groups, in the design and location of facilities."

## Monongahela National Forest Land Management Plan

Forest-wide Standards/Guidelines:

Page 64: "Give priority to the rehabilitation and upgrading of existing developed sites on the National Forest."

Page 65: "Provide Forest facilities which are safe and convenient for the handicapped at appropriate locations. Every facility need not be accessible. Cost and demand shall be considered when determining handicapped access."



V. THE CURRENT SITUATION

A. Description of the Highland Scenic Highway(HSH)

The highway is located on the Gauley and Marlinton Ranger Districts; is 43 miles long; and consists of two distinct segments.

Beginning near Richwood, WV, the first section follows State Route 39 for 21 miles to the Cranberry Mountain Visitor Center.

Facilities on this section of the HSH include: the Gauley Ranger District office; Summit Lake, a 42 acre lake with a campground, picnic area, and hiking trail; Northbend Picnic Area; the Falls of Hills Creek, with a trail to 3 waterfalls; Cranberry Glades, a botanical area featuring a boardwalk through a bog ecosystem; the Cranberry Mountain Visitor Center; and numerous hiking and cross-country ski trails.

The second segment of the highway begins at the Cranberry Mountain Visitor Center, and follows State Route 150 for 22 miles to its end at US Highway 219, about 7 miles north of Marlinton, WV. This portion of the HSH features the Cranberry Wilderness, 5 scenic overlooks, a 29 unit campground on the Williams River, and trailheads to many miles of hiking trails. This section of the highway was constructed and has been managed as a parkway.

The HSH was designated a National Scenic Byway in 1988.

## B. Existing Use

The most recent use figures for the HSH were calculated in 1982, using actual traffic data. At that time it was estimated that 168,000 visitors used the State Route 39 section of the HSH, and 88,000 people traveled the parkway section.

Recent projections for 1990 visitor use estimate 223,000 people will travel the State Route 39 section, and 138,000 visitors will travel the parkway portion of the HSH. (Mahoney, 1988)

Visitor data from the Cranberry Mountain Visitor Center indicates the majority of HSH users are from West Virginia:

<u>Visitor's Home State</u>	<u>Percent of Visitors</u>
West Virginia	66%
Ohio	8%
Virginia	6%
Pennsylvania, Maryland	6%
Others	14%

There are no available data to indicate how visitors to the HSH are recreating, although general observations indicate sightseeing is the most popular activity. This observation is consistent with survey results found in the Statewide Comprehensive Outdoor Recreation Plan (SCORP) for West Virginia. (SCORP, 1989) The survey ranked the top ten recreation activities in the state, with the following results:

<u>Recreational Activity and Order of Ranking</u>	
<u>% of Residents Participating</u>	<u>% of Non-Residents Participating</u>
1. Picnicking (76%)	1. Sightseeing (73%)
4. Sightseeing (66%)	2. Picnicking (55%)
5. Fishing (59%)	5. Hiking (29%)
7. Hunting (50%)	7. Fishing (24%)
	10. Developed site camping (22%)



### C. Current Trends

Several trends in American recreation behavior may have an influence on current and future use of the HSH.

According to the report, Outdoor Recreation In A Nation of Communities (1988), the following activities rank as the most popular recreational activities in the nation (numbers reflect % of population participating at least once per year): sightseeing (46.9), picnicking (46.2), walking for pleasure (41.3), driving for pleasure (38.4), nature study/photography (36.2), developed camping (34.9), fishing (30.9), and day hiking (23.8). This report also states that Americans are recreating closer to home; "taking more frequent trips per capita of somewhat shorter duration."

All of these activities are available on the HSH. These nationwide trends seem to coincide with current use of the Highway, and with the Statewide preferences mentioned in the previous section. Assuming this trend continues, the potential for increased use of the HSH is enormous.

Other information from the West Virginia SCORP is also helpful in describing current and potential use of the HSH:

- it is estimated 17% of the State's non-institutionalized population is physically or mentally disabled.
- by 1992, almost 15% of the state's population will be age 65 or older.

The SCORP data also revealed that 22% of State recreation managers see a lack of adequate facilities for the handicapped. (this pertains only to State facilities, but probably applies to the National Forest as well, since we are serving the same customers)

This population data, combined with the trend to recreate closer to home and the perceived need for more accessible facilities, reinforces the need to develop barrier-free access to the HSH.

**D. Current Projects**

Several major projects for the HSH are funded for design or construction in 1990.

The Falls of Hills Creek trail will be reconstructed this year. The trail to the upper falls will be relocated, paved, will follow a 4% grade, and include rest areas with benches. This section of the trail has been designed for disabled accessibility. The remainder of the trail will be an elaborate suspended stairway descending to the lower falls. It was not feasible to design this section for barrier-free access.

Four scenic overlooks on the parkway portion of the HSH will be rehabilitated in 1990. The Red Lick Overlook is a picnic area with tables and toilet facilities accessible only to able-bodied users. The other three areas currently have no facilities. All four overlooks will contain accessible picnic shelters, tables, toilet buildings, and interpretive displays. The site designs include designated parking spaces, accessible pathways to all facilities, and barrier-free displays.

The Gauley Ranger District office will be replaced in 1991. The existing office is not accessible to all Forest visitors; the new office is being designed for total access. This office is located at the Richwood entrance to the HSH. It's in an ideal location to offer information on barrier-free access to the HSH.

## VI. EVALUATION OF FACILITIES AND RESOURCES

### A. The Process

The evaluation of facilities and resources on the HSH included several steps, starting with a meeting of Forest representatives and three individuals representing the West Virginia Chapter of the National Spinal Cord Injury Association and Handicapped United of West Virginia. During this meeting, the group evaluated disabled access at Red Lick Overlook, Tea Creek Campground, and the Cranberry Mountain Visitor Center.

None of these facilities were found to be completely barrier-free. The group recognized the potential for barrier-free recreation opportunities on the HSH and was willing to review future plans or designs for accessible facilities.

The next step was to meet with Nancy Ruthenbeck, the Forest Landscape Architect responsible for disabled access surveys for the Forest. A strategy was planned which included: training in the site evaluation process; discussions with the District Rangers responsible for the HSH to determine their priorities for accessibility; a literature search; site surveys for the entire HSH; a review of survey recommendations by the District Rangers, Landscape Architect, and representatives from disabled groups; and finally, results of the survey would be incorporated into a Forest accessibility guide being prepared by Nancy Ruthenbeck.



Training in the site evaluation procedure consisted of assisting the Landscape Architect with surveys of the Cranberry Mountain Visitor Center and Tea Creek Campground. The survey tool selected was a questionnaire developed by the Indiana Department of Natural Resources entitled, "Access To Recreation, A Survey Tool" (Indiana DNR, 1988). Other survey formats were reviewed, including the National Park Service's "Survey Package For Accessibility" (NPS, 1987) and the "ANSI A117.1 Survey/Checklist" (National Center For A Barrier Free Environment, 1980). The Indiana questionnaire was preferred for its simplicity and convenience. It includes separate survey forms for each type of recreation facility. These forms contain simple questions based on ANSI A117.1 Standards and Accepted Design Criteria for Recreation Facilities. Examples of these forms are found in the Appendix.

Two meetings were held with the District Rangers responsible for the HSH. At these meetings the current condition of facilities was discussed, on-going projects were reviewed, and potential developments were discussed. Several concerns were brought up, including inaccessible restrooms at the Cranberry Visitor Center, the condition of the fishing pier at Summit Lake, the lack of accessible hiking trails along the parkway portion of the HSH, the level of accessibility at Tea Creek campground, and the need for fishing access on the Williams River.

Next a literature search was made to locate pertinent information. Literature available through the Forest Service North Central Forest Experiment Station was either outdated or inapplicable to this project; however, the Monongahela National Forest library and Recreation Staff had numerous publications which were helpful. Several publications and documents were especially useful, including:

- "A Guide To Designing Accessible Outdoor Recreation Facilities", Heritage Conservation and Recreation Service-USDI
- "Accessible Fishing: A Planning Handbook", New Mexico Natural Resources Department
- "Interpretation For Handicapped Persons", NPS Handbook
- "Planning For Accessibility Coordinators", NPS Training Guide

These publications offer excellent technical advice for designing recreation sites. Another good source of information was "Disabled Outdoors" magazine, which offers current information about disabled recreation activities around the nation.

The next step was to complete the accessibility survey for each facility on the HSH. The appropriate survey form was completed for each site: in the case of sites with many components, i.e. campgrounds, a survey form was completed for each component (campsites, toilets, picnic tables, etc.). The objectives for the survey were to evaluate the existing condition at each site, determine what needs to be done to make the site accessible, and look for undeveloped resources with the potential for disabled access.

## B. Results of the Survey

Levels of accessibility for facilities on the HSH vary, but it is safe to conclude that not a single site is completely accessible to all Forest visitors. Common problems include inaccessible toilet buildings, steep grades on walkways and trails, and a lack of stable and firm surfaces in parking areas or walkways.

The following paragraphs summarize the existing condition of each facility. Remarks concentrate on deficiencies or items needing improvement, and give suggestions for adapting each site for use by all Forest users. This does not imply each site should be adapted; it simply addresses what would have to be done to make the site barrier-free.

### North Bend Picnic Area

**Parking:** The parking area is paved and level. One space, near the toilet or well should be designated for handicapped users. The space should be 12' 6" wide, and designated with signing and paint stripes.

**Toilet Facilities:** The approach is angular gravel; this needs to be a firm slip resistant surface. The threshold into the men's toilet is 1 1/4", and 1/2" for the women's. This should be corrected to less than 1/2" and beveled. The toilet buildings are commercial units designed to be accessible; although they currently lack inside door handles and closure devices.

Picnic Area: There are nine picnic sites, none are currently accessible. All sites are level, with access from the parking area over grass or narrow dirt paths. Three sites near the south end of the parking area are good candidates for adaptation; they are 25' from the parking area and well shaded. A firm slip-resistant path 36" wide is needed for each site. Tables are acceptable height (30"), but table tops extend only 13" from seats, they need to extend 24". There is adequate maneuvering space around the tables, but there needs to be a firm surface. Grills are post mounted type, 23" to the underside. They need to be raised to 30" and insulated to avoid burns.

Well: The well is on an 8' x 8' pad with a 1" threshold, located 10' from the parking area. A surfaced path is needed, 36" wide, and level with the well pad. The adjacent bulletin board also needs a surfaced area for users.

Potential Development: A surfaced walkway joining the picnic sites and facilities and a walkway following the Cherry River would make this site more appealing.



Summit Lake Recreation Area

Campground: This 33 unit campground is divided into two separate loops. Both loops and each campsite spur are paved with asphalt.

Lower Loop, Sites 1-9: Sites 1, 2, and 3 are the best candidates for adaptation, 9% grade on loop road excludes other sites. Site #2 conditions include: camping area is surfaced with loose angular gravel; this needs to be compacted. Picnic table needs a 24" extension past benches; lantern hanger is 84" high, needs to be lowered to 54"; grill is 12" high, should be raised to 20".

Access to the toilet buildings is on a 10' wide path covered with loose gravel, on an 8% grade, with a 1" drop from the road to the path. The surface should be compacted and level with the road surface. Rerouting the path seems impractical; handrails 30" high should be provided. The doorways to both toilets are 31" wide; the minimum acceptable width is 32". Toilet risers are 15" high, they should be raised to 18".

Water is available 300' from the site. Due to the steep grade on the loop road, many disabled users would have to drive for water. The water faucet is inaccessible from the road; a culvert or bridge is needed to cross a wide ditch, and a 3' wide surfaced path is needed. The faucet has a control knob mounted 17" from the ground. A lever type control is preferred, mounted 36" high.

The existing trail from Site #3 to the dam has great potential for adaptation, although slopes of up to 10% would limit wheelchair use. The trail surface should be compacted, and handrails added where slope exceeds 5%. Level rest areas are needed every 100'. The point where the trail joins the dam is very wet; this area needs drainage improvements and a firm trail surface.

The campground fee station is located 400' from the lower loop entrance, and 0.2 miles from the upper loop. It is situated on the paved access road, on a 7% grade. It is assumed most disabled users would travel to the fee station by car.

Upper Loop, Sites 10-33: Sites 23, 24, and 25 are the best sites for accessibility, due to their proximity to the well and toilets. Sites 21, 22, 26, 27, and 28 also have potential, but are located far from facilities. Site #25 conditions include: the camping area is surfaced with loose angular gravel. This needs to be a firm slip-resistant surface. The table top needs to extend 24" from the seats. The lantern post is 82" high; this should be lowered to 54". The grill is 12" high; this should be raised to 20". The campsite drops off on three sides; 2" high bumpers should be installed around the perimeter of the site.

The toilet building near Site #25 is accessed by a gravel path 60' long and 3' wide on an 8% grade, with a grass path between the men and women's sides. This path should be 3' wide with a firm surface, have a level rest area mid-way on the path, and have 30" handrails. The toilet doorways are both 31" wide; they should be at least 32". The riser is 15" high; this should be raised to 18". Paper dispensers are mounted above the grab bars; these should be relocated under the bars.

A hand pump well is located 240' from Campsite #25. Access is on the loop road to a narrow gravel path, 25' long on a 16% grade. This path should be replaced with a 3' wide surfaced trail on a slope of less than 5%. The well is located on an 8" high 42" x 72" concrete platform. The well should either be remounted at ground level or an access ramp be constructed.

**Picnic Area:** The picnic area is adjacent to the 34 car parking lot and contains four tables. There are no designated parking spaces in the lot; two spaces closest to the access path should be designated with signing and paint stripes.

The access path is graveled, 15' long, on a 9% grade. This should be compacted and handrails installed. At least one table should be adapted for disabled access. The picnic tables are situated on a 15' x 60' pad of loose gravel. This area should be compacted or resurfaced; grass is encroaching into the area. Table tops need to extend 24" beyond the seats. The site is completely unshaded; a small shelter should be considered for the site or shade trees planted.

Toilets are accessed by a 4' wide gravel path, 75' long on a 4% grade. This path has patches of grass and needs resurfacing. There is a 1 1/2" rise from the path to the concrete pad in front of the women's toilet; this should be leveled. Doorways to both toilets are too narrow; the men's side is 28" wide, the women's is 29". These should be a minimum of 32". The risers are 15" high: these should be raised to 18".

The hand pump well is located 85' beyond the toilets. The path is a mix of gravel and grass and has a 10% grade for 30'. This should be resurfaced and handrails installed or the path could be rerouted to avoid the steep grade.



**Fishing Pier:** The fishing pier was designed for handicapped use.

The parking area has one designated space for handicapped parking. A drainage separates the parking area from the entrance ramp to the pier. This drainage is limiting use for all visitors and needs to be corrected.

The pier is 260' long, with a 9' x 19' deck at one end. The deck has heaved up at a 20% slant from front to back, apparently from ice damage. The deck will have to be leveled. Handrails are 28" high on the deck, but 37 1/2" high along the length of the pier. Sections of the handrail along the pier should be lowered to provide more fishing stations: 32" high is considered ideal for seated anglers. The top plate on the handrail is currently level; this should slant toward the pier to provide an armrest. Fishing rod holders should be located at each fishing station. Tackle shelves would also improve each station. The pier faces west and offers no shade at all. A roof over the deck would also improve the site.

The closest toilet and well are near the picnic area, located about 230' from the pier. Direct access includes a gravel path, 2' wide, 20' long on a 15% slope. This path should be reconstructed to avoid the steep grade.

**Boat Docks:** There are two docks, one on each end of the dam. The east dock is the best candidate for adaptation; since parking, toilets, drinking water, and the boat ramp are nearby. This dock has also been twisted by ice, the deck is sloped 8% from front to back, and the surface is 29" above waterline. The deck needs to be leveled and rest 18" above the water. Curbs 2" high and railings 30" high should be placed around the pier. A step-seat and over-hanging railing should be provided for transferring to a boat. A life ring and ladder should also be installed.

**Hiking Trail:** A trail, approximately one mile long, circles Summit Lake. The trail is currently inaccessible, but has great potential for adaptability. The trailhead is at the parking area for the fishing pier, and is blocked by a very wet area, requiring a boardwalk or culvert. The trail traverses fairly level terrain with visual variety and good potential for interpretation. The trail crosses two major streams requiring bridges, one 200' wet area needing a boardwalk, and has numerous short slopes of up to 10% grade. Surfacing is native soil and wood chips; a more stable surface would be needed. One section of the trail crosses the dam, a distance of 1300'. This section would also need a firm surface and ideally, should have a 2" high curb. There are many good locations for rest stops and interpretive stations along the trail.

Falls of Hills Creek

The hiking trail to the upper falls is being reconstructed as a barrier-free trail in 1990. The parking lot, which is paved and holds approximately 25 vehicles does not have designated spaces. Two parking spaces between the toilets and trailhead should be designated with signing and paint stripes.

The toilets are accessed by a path surfaced with large angular gravel and includes one 12' section with a 15% grade. The path needs a firm slip-resistant surface and the grade reduced to 5%. The threshold into each building is 1"; this needs to be less than 1/2" and beveled. Doorways for both toilets are 29" wide; they need to be 32" wide minimum. The interior of each toilet is a molded unit, similar to a shower stall. Dimensions of the unit are too small to accommodate a wheelchair; there is only 24" clearance between the riser and door. The toilets must be replaced with units having acceptable dimensions.

Cranberry Glades Botanical Area

The parking area is paved and holds about 15 vehicles. One space is designated for disabled parking; it is signed but needs paint stripes.

Toilets are accessed by a narrow gravel path, with a 10% grade for the first 15', 7% grade thereafter. The path should be rerouted to avoid the steep grade, or have handrails and level rest stops every 30'. The path should be 3' wide and have a firm slip-resistant surface. The threshold into the toilets is 1" for the men's side and 4" for the women's. There is no firm surface at the entrance to the buildings; a 47" wide concrete pad should be installed, level with the threshold. Doorways are only 27" wide; they should be 32". Interior dimensions of the building are too small to accommodate a wheelchair; there is only 23" clearance between the riser and the door. The buildings should be replaced with units having acceptable dimensions.

The Glades interpretive trail begins with a 95' long paved section on a 7% grade. Handrails and level rest stops every 30' should be provided. The boardwalk portion of the trail is 2800' long with 4' wide decking. A gap where the pavement and boardwalk join needs repair. Six sections of the boardwalk have heaved, creating 1" to 3" obstructions; these areas should be leveled. The boardwalk is elevated about 1 1/2' above ground level. A 2" bumper rail should be added on each side of the deck. Interpretive stations are large enough to accommodate benches and still provide room for wheelchair use. Currently, only one bench is provided; three more should be added.



Cranberry Mountain Visitor Center

(This evaluation was written by Nancy Ruthenbeck, Forest Landscape Architect)

**Parking:** Apparently, two spaces have been designated for use by handicapped visitors. However, these spaces are not well marked. Lines on the pavement should be placed to mark the boundaries of these spaces, so that other vehicles do not encroach. The preferred width for each of these spaces is 12'6", plus the shared access aisle (4' wide) where the curb ramp is located.

Better signage is also needed; the existing sign is low and would be obscured by parked vehicles. Also, since the sign's placement is at the end of the lot, whether or not the second parking space is intended to be reserved is not clear. A sign should be placed at each space to clearly mark it as being reserved for handicapped visitors; pavement markers alone are not adequate, since they would be obscured by parked vehicles which is not permitted by standards.

**Route of Travel:** When filler is added to joints in concrete or flagstone, care should be taken to ensure that the filler is no greater than 1/2" in height or width. If the height is no more than 1/4", the edge may be vertical; if the height is between 1/4" and 1/2", then the edge must be beveled with a slope no greater than 2:1. Joints in paving must be no wider than 1/2".

Trees branches (and twigs) overhanging the walk must must be trimmed to a minimum height of 7', so that they are not hazardous to visually impaired persons.

Because picnic tables are provided here and grass is not considered an accessible surface (although since the grass is fairly level, some people would be able to gain access to the tables), consideration should be given to placing at least one table on the concrete or flagstone (hard surface for 5' minimum around the table), out of the main flow of traffic. The existing tables would be usable, but consideration should be given to providing a table which has a 30" height to its underside and where the table top extends 24" past the ends of the benches.

Entrance: The threshold is approximately 1 1/4" higher than the walkway. The standards provide that when the difference in height at the threshold is greater than 1/2", it must be beveled with a slope not to exceed 2:1. However, although the threshold is beveled, it is steeper than 2:1. The slope needs to be gentler.

Consideration should be given to installing a metal edge strip on the door, extending from the bottom to a 40" height, in order to protect it.

A sign with raised or incised lettering should be installed at a 60" height next to the door in order to identify the building. A tactile sign is helpful to visitors with visual impairments.

The standards require that 1' be clear and level on each side of the door opening. A heat register to the left of the door (when facing the building) currently violates that clearance by projecting 7 3/4" from the wall into that space. If a person uses the door on the right side, the problem is not encountered. Consequently, although the problem is not serious, consideration should be given to installing a shorter heat register or moving the existing one.

The automatic door closer should be adjusted so that the door closes more slowly. From an open position of 70 degrees, the door must take at least 3 seconds to close to a point 3" from the latch, measured to the leading edge of the door.

**Auditorium Entrance:** This entranceway has two doors (side by side); one of these doors provides a clear opening of only 27 1/2". Where dual door entries exist, both doors must be operable by a single effort, or one door must provide a 32" minimum clear width opening. Although a person would only have to open one door since the other door is normally left open, consideration should be given to replacing these doors with a single door.

**Auditorium Seating:** People would be able to park wheelchairs at the ends of the rows of seats. However, because these seats are movable, visitor center personnel should make sure that room for wheelchair users exists.

**Counter Height:** The counter height, which is 42", is rather high for a person in a seated position. Consideration should be given to installing a counter which is no higher than 36".

**Exhibits:** Although almost all exhibits are easily visible from a seated position, some of the type is small (notably on the wilderness exhibit and some of the artifact labels) and would be difficult to read for a wheelchair user or for a visually impaired person. All type should be at least 18 point (which is approximately 1/4").

**Drinking Fountain:** Although the spout height on the lower fountain is acceptable, the spout is located on the side of the fountain, 3" back from the front, rather than at the front as standards require. Instead of replacing the fountain, install a cup dispenser on the wall next to the fountain with a 40" maximum height for the dispenser opening.



**Men's Restroom:** The door provides a clear width of only 27"; the doorway needs to be replaced with a door which provides a minimum clear width of 32" (36" preferred).

The privacy screen is located 1/2" closer to the door than the minimum distance allowed (42"; 48" is preferred); either move the privacy screen back or remove it.

Although the underside of the sink should be a minimum of 29", most people can use sinks which are as low as 27"; these sinks measure 28" to the underside. Consideration should be given to installing a sink which measures at least 29" to the underside, with a maximum of 34" to the top of the sink. The pipes under the sink must be insulated, covered with a protective housing, or recessed, so that people's legs do not come in contact with them. Replace the faucet knobs with controls that can be operable with one hand and do not require tight grasping, pinching, or twisting of the wrist. If using a push type faucet control, it should be slow release, so that the water stays on without continual pressure and shuts off automatically. With lever or paddle-shaped controls, they should not be spring-loaded for automatic shut-off. The force required to activate controls can be no greater than 5 pounds. Be sure the water temperature does not exceed 120 degrees (F).

Rehang the towel dispenser so that the opening is a maximum of 38"-40" high.

Replace the urinal with one that has an elongated rim at a maximum height of 17" above the floor (15" preferred). A clear floor space of 30" by 48" must be provided in front of the urinal. Flush controls must be no higher than 44".



The dimensions of the adapted toilet stall (36" wide by 55" deep) do not meet standards. The standard accessible stall, which is required, measures 60" wide by 56" deep with a wall mounted toilet or 59" deep with a floor mounted toilet.

(EXCEPTION: In cases of alteration, where providing a standard stall is structurally impracticable or where plumbing code requirements prevent combining stalls to provide space, an alternate stall design may be provided. It measures at least 36" wide by 66" deep with a wall mounted toilet or 69" deep with a floor mounted toilet; the toilet is centered on the back wall. A second alternate stall layout measures at least 48" wide by 54" deep.) When enlarging the existing stall, be sure not to reduce the clearance in front of it; it is currently 48". (For a latch-side approach, the minimum is 42"; 48" is minimum for all other approaches.) If this distance must be reduced in order to obtain the required stall dimensions, then extend the stall to the opposite wall, and put the entrance on the stall's side. The toilet must be mounted 18" from the toilet's center line to the side wall (generally the side wall diagonally opposite the stall door). The grab bars in this stall must be replaced. For the standard stall layout, on the back stall wall, the required grab bar is 1 1/4"-1 1/2" diameter, mounted horizontally, 1 1/2" from the wall, 33"-36" high, starting no more than 6" from the wall closest to where the toilet is mounted and extending for a minimum of 36". On the side stall wall closest to the toilet, the grab bar is 1 1/4"-1 1/2" diameter, mounted horizontally, 1 1/2" from the wall, 33"-36" high, starting no more than 12" from the back wall and extending for a minimum of 40". Dispensers must be mounted under the grab bars. The toilet seat is too high (22"); it must be no higher than 17"-19". Consideration should be given to moving the hook on the door so that it is 40"-48" high, mounted close to the hinges.

**Women's Restroom:** The passageway to the women's restroom, between the wall and seating area is too narrow for a person in a wheelchair to negotiate. Although the chairs are movable, the turn into the opening at the end of the wall would still be difficult to negotiate. However, because the area by the drinking fountain is quite spacious, women could gain access to this area via the same passageway the men use; signing should be posted to indicate that as the accessible route.

The door provides a clear width of only 27"; the doorway needs to be replaced with a door which provides a minimum clear width of 32" (36" preferred).

The privacy screen is located 1" closer to the door than the minimum distance allowed (42"; 48" is preferred); either move the privacy screen back or remove it.

Although these sinks measure 28" to the underside, which is usable by most people, consideration should be given to installing a sink which measures at least 29" to the underside, with a maximum of 34" to the top of the sink. The pipes under the sink must be insulated, covered with a protective housing, or recessed, so that people's legs do not come in contact with them. Replace the faucet knobs with controls that can be operable with one hand and do not require tight grasping, pinching, or twisting of the wrist. If using a push type faucet control, it should be slow release, so that the water stays on without continual pressure and shuts off automatically. With lever or paddle-shaped controls, they should not be spring-loaded for automatic shut-off. The force required to activate controls can be no greater than 5 pounds. Be sure the water temperature does not exceed 120 degrees (F).

Rehang the towel dispenser so that the opening is a maximum of 38"-40" high.

The dimensions of the adapted toilet stall (38 1/2" wide by 56" deep) do not meet standards. The standard accessible stall, which is required, measures 60" wide by 56" deep with a wall mounted toilet or 59" deep with a floor mounted toilet. (See EXCEPTION noted previously in the "Men's Restroom" section.) Because the clearance in front of the stall is currently only 37", the stall will probably have to be extended to the opposite wall, with the entrance on the stall's side. (For a latch-side approach, the minimum clearance in front of the stall is 42"; 48" is minimum for all other approaches.) The toilet must be mounted 18" from the toilet's center line to the side wall (generally the side wall diagonally opposite the stall door). The grab bars in this stall must be replaced. For the standard stall layout, on the back stall wall, the required grab bar is 1 1/4"-1 1/2" diameter, mounted horizontally, 1 1/2" from the wall, 33"-36" high, starting no more than 6" from the wall closest to where the toilet is mounted and extending for a minimum of 36". On the side stall wall closest to the toilet, the grab bar is 1 1/4"-1 1/2" diameter, mounted horizontally, 1 1/2" from the wall, 33"-36" high, starting no more than 12" from the back wall and extending for a minimum of 40". Dispensers must be mounted under the grab bars. The toilet seat is too high (22"); it must be no higher than 17"-19". Consideration should be given to moving the hook on the door so that it is 40"-48" high, mounted close to the hinges.



Trail: The trail's surface, which is currently gravel, needs to be compacted so that it is stable, firm, and slip-resistant. Rocks and tree roots on the trail tread should be removed or covered over. Branches and leaves should not be allowed to accumulate on the surface. The trail should have a definite edge, such as a wood strip or a surface texture which is obviously different from the surroundings, so that visually impaired people do not wander off the trail (the gravel is different from the surroundings, but because of leaves on the surface, this difference is obscured). The benches provided along the trail should be moved back to provide at least 48" between the back of the bench and the near edge of the trail to allow room for extended legs or crutches. Next to one end of the bench at least a 36" wide area should be clear and level to allow a person in a wheelchair to rest. The surface in this area and under and in front of the bench should also be stable, firm, and slip-resistant. The flagstone near the benches at the overlook should be re-laid to be level or replaced.



Tea Creek Campground

Campsites 1 thru 19 are located on high ground; sites 20 thru 29 are situated along Tea Creek. Sites along Tea Creek are subject to flash flooding and were not considered for adapting to disabled use.

Campsites 9 and 10 are the best candidates for adaptability, as they are closest to the well and toilets. The sites are surfaced with loose angular gravel, which should be converted to a firm slip-resistant surface. Table tops should be extended to 24" beyond the seats. Lantern posts are 84" high; these should be lowered to 54". The grill surface is 8" high; this should be raised to 20". Site #9 is elevated with slopes on 3 sides; a 2" bumper should be installed. Trash cans should be relocated to a level area with a firm surface.

Access to the toilet building is by the loop road. This is surfaced with crushed rock and is minimally acceptable as a firm slip-resistant surface. Vehicle traffic is one-way, slow speed, and very light. A better alternative is to construct a walkway from Site #9 to the toilet building (site #10 is directly across the road from the building). The 50' path from the road to the building is narrow, gravel, and on a 7% grade. This should be resurfaced; handrails installed; and a level rest area provided.

The toilet doors are 28" wide; 32" is the minimum requirement. Interior dimensions of the stalls are minimally acceptable. The building could easily be modified to improve access: doors should be relocated from the sides to the ends of the building, the building can be moved back 1' on its foundation. A 4' x 9' pad would be needed in front of the building.

A hand pump well is located 140' from Site #9. Access is by the loop road, the proposed walkway to the toilet should be extended to the well.

The fee station surface is gravel; this needs to be compacted.

## Hiking Trails

Approximately 90 miles of hiking trails can be accessed from the HSH. (about 19 miles are wilderness trails) A majority of these trails cross very rugged mountainous country and are not suited for barrier-free access. Common problems include: very rocky terrain with large boulders, long sustained grades of 10% to 15% slope, elevation gains of up to 1400', and frequent stream crossings.

The following trails have no potential for barrier-free access:

Non-wilderness Trails - Eagle Camp, Pocahontas, Kennison Mountain, High Rocks, Tea Creek, Tea Creek Mountain, Right Fork of Tea Creek, and Gauley Mountain.

Wilderness Trails- Forks of Cranberry

The following trails have potential for barrier-free adaptation:

Non-wilderness Trails:

Cow Pasture trail: A 1.3 mile portion of this trail, from the prison farm trailhead to the entrance near Cranberry Glades, could be adapted. The trail passes thru a meadow, hardwood forest, and bottomlands. This trail is an old road, fairly level and grassed over. The trail already has a good base, a firm slip-resistant surface is needed. From the trailhead, a 180' section is on a 9% grade. This section would need rerouting into the adjacent field. Beyond the prison site, obstacles include two wet areas and one creek. Accessible parking is needed at both ends of the trail.

Cranberry Glades Overlook: This 0.2 mile trail is very popular, and close to the Visitor Center. The parking area is paved: one space should be designated. The trail is very steep, with sustained grades of 10 to 16%, requiring significant rerouting. The entire trail tread is native soil; a firm surface is needed.

Williams River Trail: This trail is an old railroad grade which follows the Williams River from Tea Creek Campground. The first one mile section, from the campground to the HSH, could be adapted. The gravelled parking area would need one designated space with a firm surface. The trail needs a firm surface for its entire length; turnpiking with drainage dips would be needed to cross several drainages. The Tea Creek bridge would need ramps constructed on either end .

Little Spruce Overlook: Currently there is no trail in this area. The overlook is being converted to a barrier-free facility this year; there is good potential for a short interpretive trail here. The trail should ideally be paved and include interpretive signing for the visually impaired. There is an excellent location for an observation deck also.

#### Wilderness Trail:

North-South Trail: A 2.5 mile section of this trail parallels the HSH. Most of this section follows an old road Trailhead parking includes a paved lot for two vehicles at the south end, and a gravelled area at the north trailhead. The south end of the trail is a narrow tread with native soil surfacing. The remainder of the trail tread is old road bed; gravel remains in some areas, grass is growing onto the road in most areas. The trail would need a firm surface for its entire length. The trail is fairly level, although grades of 6% to 7% are common. Rest areas are needed all along the trail.

#### Mountain Biking

The sport of mountain biking is becoming very popular along the HSH. Mountain bikes are allowed on Forest roads and hiking trails outside the wilderness area. The Dogway Road, Cranberry River Road, Williams River Trail, and Gauley Mountain Trail are the best areas for disabled persons seeking this experience.



### Cross-Country Ski Trails

Many hiking trails and Forest roads are managed as cross-country ski trails. Approximately 74 miles of trail are available along the HSH, with 44 miles rated at the "easiest" level. The 2 mile Cranberry Loop trail, beginning at the Visitor Center, is the best candidate for disabled skiing. Suggested improvements to the parking area (mentioned earlier) would make this an accessible ski trail. The trail is packed and groomed, and wouldn't need modification. (Note: this trail crosses the HSH. It is assumed disabled skiers would require assistance) This trail also joins the Cranberry River road, a 19 mile trail also rated "easiest".

### Dispersed Camping

The Deadwaters dispersed camping area, located near the HSH, is not considered suitable for adapting to disabled access. The campsites are all subject to flash flooding.

### Williams River: Dead Waters Fishing Area

The Dead Waters, near the Williams River bridge, is a popular fishing hole. This site was evaluated by the Forest fisheries biologist and an engineer as a potential site for a handicapped access fishing pier. They determined the site is appropriate for a pier; based on the fisheries resource and construction site conditions. The pier should be level with the bank, have a roof for shading ( there is no natural shade ), railings with arm rests and tackle shelves, and benches. The existing parking area must be modified for accessible parking; a firm surface is required and at least one designated space provided.



## VII. Recommendations

The accessibility survey revealed there are currently no facilities on the HSH completely accessible to all Forest visitors. Adapting existing sites for barrier-free access should be a higher priority than developing new recreation facilities. If the decision is made to adapt a site, all elements of the site should be made accessible.

The following paragraphs list recommended actions for adapting the HSH. Projects are listed in order of suggested priority. Project costs and level of difficulty were not considered in this recommendation. These factors are highly variable, depending on construction methods, materials, contracts verses force account labor, and in some cases unrelated factors. For example, some toilet buildings may be modified to provide barrier-free access, others may be replaced with new accessible buildings which also meet the "sweet smelling toilet" initiative.

Those sites which currently receive the highest use should be adapted first, as they have the greatest potential to serve our customers. The Cranberry Mountain Visitor Center is the most visible facility on the HSH, and receives the greatest use. This site should be the highest priority for barrier-free access on the HSH.

The North Bend Picnic Area, Falls of Hills Creek, and Cranberry Glades Botanical Area are also highly visited day use areas and should be given high priority for adaptation.

Campgrounds should be next on the list of priorities. Summit Lake Campground should be adapted first, as it has much greater potential to serve more visitors than the Tea Creek Campground. Ideally, the Summit Lake Picnic Area, fishing pier, and boat dock would be adapted as well, making this a total access recreation area.

Hiking trails are the next priority. Consideration should be given to adapting trails which currently receive high use, and also to providing a variety of trail types and conditions. The Cranberry Glades overlook trail receives a great deal of use and would offer a short, easy hike. The Cow Pasture and Williams River Trails would offer a more challenging experience and a chance to "get away from the crowd". These trails also offer opportunities for dispersed camping and hunting. The North-South Trail in the Cranberry Wilderness should be adapted for those persons looking for a more challenging trail. Because this trail is an old road bed, it can be adapted for accessibility and still offer a challenging wilderness experience. (latest Washington Office direction implies a 32" wide trail tread accessible to wheelchairs is acceptable in wilderness)

Finally, a fishing pier should be constructed at the Williams river Dead Waters area. This should lower priority than repairing the fishing pier at Summit Lake. With this facility, people could choose between stream fishing or still water fishing at Summit Lake. This project has potential for cost-share funding from several organizations.

The following factors should also be considered in planning barrier-free projects for the HSH:

The accessibility surveys indicated the need for firm slip-resistant surfaces on walkways. Although asphalt or concrete are the preferred materials, it's likely these will be too expensive or unavailable. Suitable alternatives are a mixture of crushed limestone and calcium chloride, or soil cement mixtures.

All projects should be reviewed by the Forest landscape architect. The group which reviewed accessibility on the HSH is available for consultation and very willing to assist in planning projects. We should continue this cooperation.

The Forest is on the verge of a new marketing strategy. Marketing the HSH as a barrier-free facility should be a major element in this effort.



## VIII. Conclusion

The legal direction to provide outdoor recreation opportunities to all Forest visitors is very clear. This direction has been reinforced by the National Recreation Strategy; which challenges us to provide customer satisfaction to all visitors, including the disabled, elderly, and young.

The Highland Scenic Highway offers a variety of recreation facilities and resources to our able-bodied visitors, but falls short of satisfying the needs of our disabled customers. Recreation use data for the nation and West Virginia indicate the HSH has the potential to meet our customers' needs. The most popular recreation activities are offered here; including sightseeing, picnicking, hiking, fishing, and camping. However, a large segment of our potential visitors, disabled persons, are unable to enjoy the HSH in its current condition.

A survey of facilities on the HSH indicate there are no areas completely accessible to our disabled visitors. Recommendations have been made to adapt many of these facilities, with the objective of offering a variety of recreation opportunities to disabled persons. These opportunities would include all of the popular activities currently available to our able-bodied visitors.

Visits to the HSH will likely increase in the future. The Scenic Byway initiative and Forest marketing will give the highway more exposure. As more people visit the area, the need to provide facilities useable by all persons will increase. It is clear that facilities designed for barrier-free access benefit many of our customers, not just people in wheelchairs. Toddlers, elderly people, and people with temporary disabilities all require accessible facilities.

The Highland Scenic Highway is a special resource, with potential to be one of the premier recreation areas of the Monongahela National Forest. To achieve this potential, the highway must be able to meet the needs of all our customers. As a barrier-free facility, the Highland Scenic Highway will meet the objective of the National Recreation Strategy: Provide Customer Satisfaction!

IX. BIBLIOGRAPHY

Beechel, Jacques

1975                    Interpretation For Handicapped Persons.    Seattle, WA

Indiana Department of Natural Resources

1988                    Recreation Areas Without Barriers Design Criteria.  
Indianapolis, IN

Mahoney, Harry

1988                    Management Strategy for the Highland Scenic Highway.  
Monongahela National Forest, Elkins, WV

National Center for a Barrier Free Environment

1981                    Access Information Bulletin.    Washington, D.C.

New Mexico Natural Resources Department

1984                    Accessible Fishing: A Planning Handbook.  
Albuquerque, NM

USDA Forest Service

1988                    America's Great Outdoors- National Recreation  
Strategy

USDA Forest Service

1988                    Eastern Recreation Strategy



USDA Forest Service

1986            Monongahela National Forest Land Management Plan  
Elkins, WV

USDI National Park Service

1987            Planning For Accessibility Coordinators: Training  
Guide

USDI National Park Service

Heritage Conservation and Recreation Service

1980            A Guide To Designing Accessible Outdoor Recreation  
Facilities. Ann Arbor, MI

United States Domestic Policy Council

1988            Outdoor Recreation In A Nation Of Communities, Action  
Plan For Americans Outdoors. Washington, D.C.

West Virginia Governor's Office Of Community And Industrial Development

1988            Statewide Comprehensive Outdoor Recreation Plan.  
Charleston, WV

APPENDIX A

The following Forest Service manual references offer direction on handicapped accessibility:

FSM 2300 - Zero Code

2303, #5: "Ensure high quality experiences through facility location, design, and maintenance, that affords reasonably safe and healthy facilities; and are accessible to as many people as possible, including the handicapped, who will be integrated with the able-bodied."

FSM 2320 - Wilderness Management

2320.5: Defines prohibited types of mechanical transportation within wilderness areas, and states " it does not include wheelchairs when used as necessary medical appliances."

FSM 2330 Publicly Managed Recreation Opportunities

2330.3 - Policy, #8: "Strive to make it possible for the handicapped to be included in the mainstream of life when pursuing outdoor recreation opportunities.

2333.03 - Policy, No. 4: "Design and install facilities that are:(f) Devoid of barriers to the handicapped to the degree specified in "Specifications for Making Buildings and Facilities Accessible to, and Usable by, The Physically Handicapped." (ANSI-A117.1- Updated in 1980)

2333.33 - Design For Use By Physically Handicapped: "Provide recreation sites and facilities whose designs accomodate handicapped individuals. Prevent or eliminate architectural barriers that limit use or enjoyment of recreation attractions."

FSM 2340 Privately Provided Recreation Opportunities

2340.3 - Policy, No. 7: " Ensure that all services and facilities provided by private individuals or public entities under special-use permits are equally available to all members of the public. Include anti-discrimination clauses in special use permits and revoke the permits if discriminatory practices occur."

FSM 2390 Interpretive Services

2390.3 - Policy: " the following policies guide interpretive services:

(4) Ensure that a representative selection of interpretive service facilities and opportunities are available to the handicapped visitors."

2392.1 - Program Direction: " Meet the needs of the publics identified in the interpretive services planning process. Relate the content of an area's interpretive program and the range of activities to the diversity of visitor interest, abilities, and background, including minorities, disabled, elderly, children, and non- English speaking visitors. Strive for a balanced program designed to serve the needs of experienced and inexperienced users alike."

# Parking

## Recommendations

Is parking paved with a stable, firm, slip-resistant surface?  
(at least at the accessible parking spaces) \_\_\_\_\_

Are there parking spaces designated for use by  
handicapped visitors?  
(each space should be signed) \_\_\_\_\_

If not, can they be provided? \_\_\_\_\_

Where? \_\_\_\_\_

Are parking regulations enforced? \_\_\_\_\_

How many spaces are designated?  
(See table on page 5 of **Recreation Areas without  
Barriers: Design Criteria** for required number of  
accessible parking spaces.) \_\_\_\_\_

How wide are the designated spaces?  
(8' minimum with an adjacent access aisle of at least 5'  
wide [if vans will use the spaces, then the access aisle  
must be a minimum of 8' wide]; the preferred width is a  
12'6" parking space with an adjacent 4' wide access  
aisle; two adjacent parking spaces can share the same  
access aisle.) \_\_\_\_\_

Are they end spaces? \_\_\_\_\_

If not, could end spaces be provided? \_\_\_\_\_

Can a handicapped person leave the parking lot without  
having to negotiate behind parked cars or through  
traffic? \_\_\_\_\_

How far are designated spaces from the destination?  
(200' maximum) \_\_\_\_\_

If there are wheel stops, is there at least a 36" break  
between them so that a person in a wheelchair can get  
between them?  
(located nearby the designated spaces, so that people  
do not have to go behind parked cars) \_\_\_\_\_

If there is a fence or bollards connected by a chain, is  
there at least a 36" break so that a person in a  
wheelchair can get through?  
(located nearby the designated spaces, so that people  
do not have to go behind parked cars) \_\_\_\_\_

If there is a curb, is there a curb cut by each designated  
space, so that a handicapped person can exit the  
parking lot? \_\_\_\_\_

If the parking lot is used at night, is it lighted? \_\_\_\_\_



# Picnic Tables and Shelters

## Recommendations

Is there parking that conforms to the criteria listed under Parking?

If not, what needs to be done?

Is there an accessible route of travel to the picnic area with curb cuts where needed?

(Refer to Route of Travel-Walkways, Curb Cuts.)

If not, what needs to be done?

Is there an accessible restroom within 200'?

Is access over a stable, firm, slip-resistant surface?

Is there an accessible drinking fountain within 200'?

Is access over a stable, firm, slip-resistant surface?

Is the shelter threshold even with the walkway surface?  
(If not, add a ramp; most shelters should be accessible.)

Is there room for a person in a wheelchair to maneuver around the tables?  
(3' between table sides [3'6" preferred]; 6' between table ends to allow wheelchair users to sit there)

Is there a height of 30" (27"-30" is usable) to the underside of the table?

Do the ends of tables extend 24" past the ends of benches?

Do tables not in shelters have a stable, firm, slip-resistant surface up to and around the table, so that a person in a wheelchair can maneuver around it?  
(5' minimum around table) (10% of the total number of picnic tables should be accessible.)

Are accessible tables not segregated in one area?

Are some picnic tables shaded?

Are there trash cans with a stable, firm, slip-resistant surface up to them?

Are there grills with a stable, firm, slip-resistant surface up to them?

Is the grill surface 18"-24" high, or are there post-mounted grills with a 30" height to the underside?

Are grills insulated to avoid burns?

Are they properly maintained?

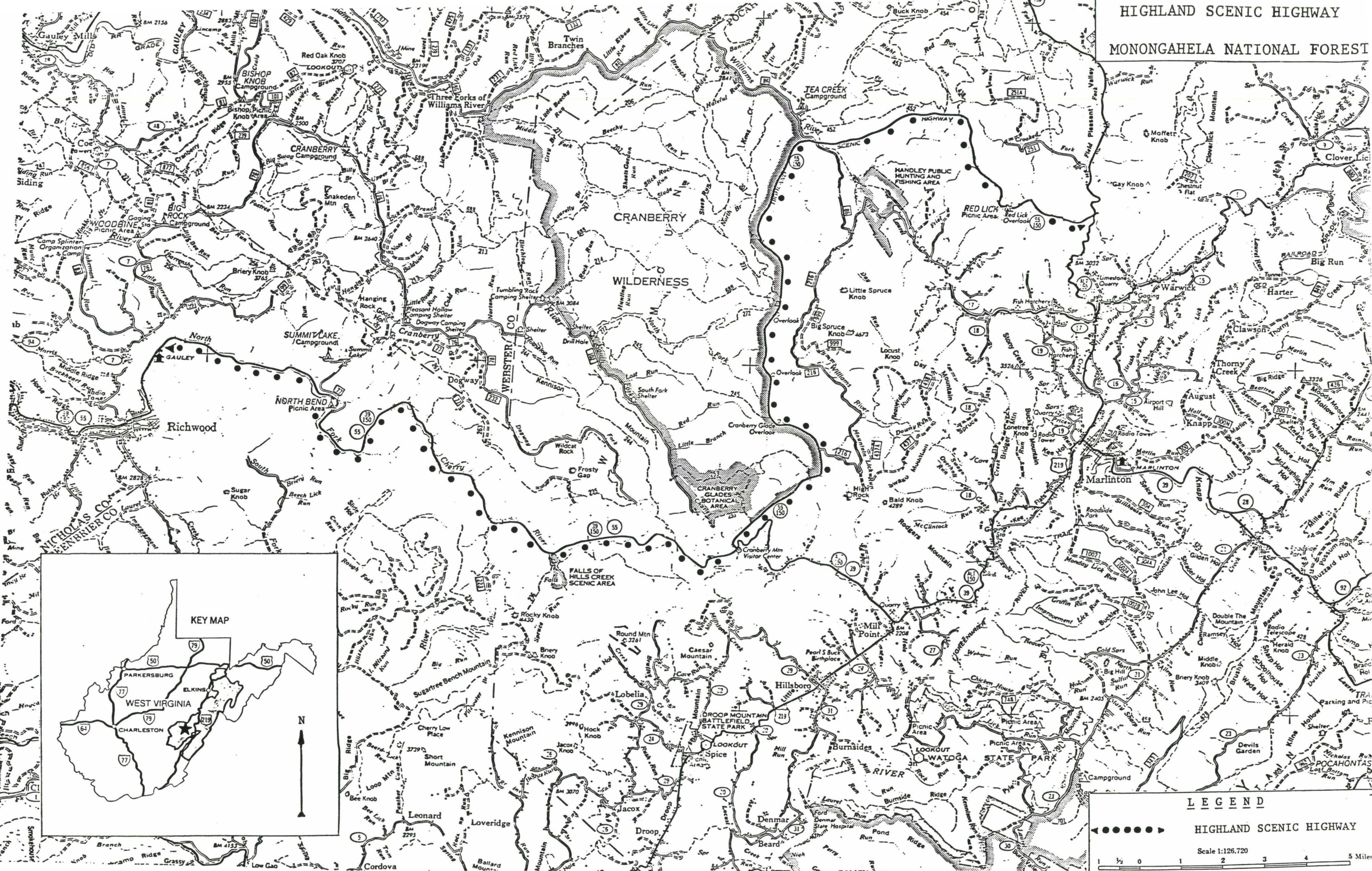
## Route of Travel-Walkways (excluding trails)

### Recommendations

Do walkways have a stable, firm, slip-resistant surface? (need not be concrete or asphalt; can be crushed lime-stone aggregate [In. Dept. of Highways Type P, Size 73], mixed with calcium chloride [over a prepared subgrade], rolled and compacted periodically; other compacted surfaces may also be acceptable)	_____
Is the gradient no greater than 5% (20:1)?	_____
Is the clear width at least 36" (48" preferred)?	_____
If less than 60" wide, are there places along the walk that are at least 60" wide, no more than 200' apart, to allow two wheelchairs to pass?	_____
If not, could such areas be provided?	_____
If the walk is long (more than 100'), is the slope less than 5% (20:1)?	_____
If not, are there level areas, at least 42" long, every 100' where people can stop and rest?	_____
Where there are joints, are they no greater than 1/2" wide?	_____
Where there are joints, is there no greater than 1/2" difference in height? (If the height is no more than 1/4", the edge may be vertical; if the height is between 1/4" and 1/2", then the edge shall be beveled with a slope no greater than 2:1.)	_____
Is the walk properly maintained?	_____
Is there a curb or guard rail at dangerous places?	_____
Are there branches, signs, or other hazards which could trip people or cause difficulties for people in wheelchairs?	_____
Are there low hanging branches or signs (7' minimum clearance) that would be hazardous to visually impaired people?	_____
If the walk is used at night, is it lighted?	_____
Is the walk level for 5' before an entrance?	_____
Are there rest areas with benches along the way?	_____
Are each of them shaded?	_____
Is the area at least 48" deep (measured from the edge of the walk) to allow for extended legs, crutches?	_____
Is there a minimum of 36" at one end of the bench where a person in a wheelchair can rest?	_____



HIGHLAND SCENIC HIGHWAY  
MONONGAHELA NATIONAL FOREST



LEGEND

----- HIGHLAND SCENIC HIGHWAY

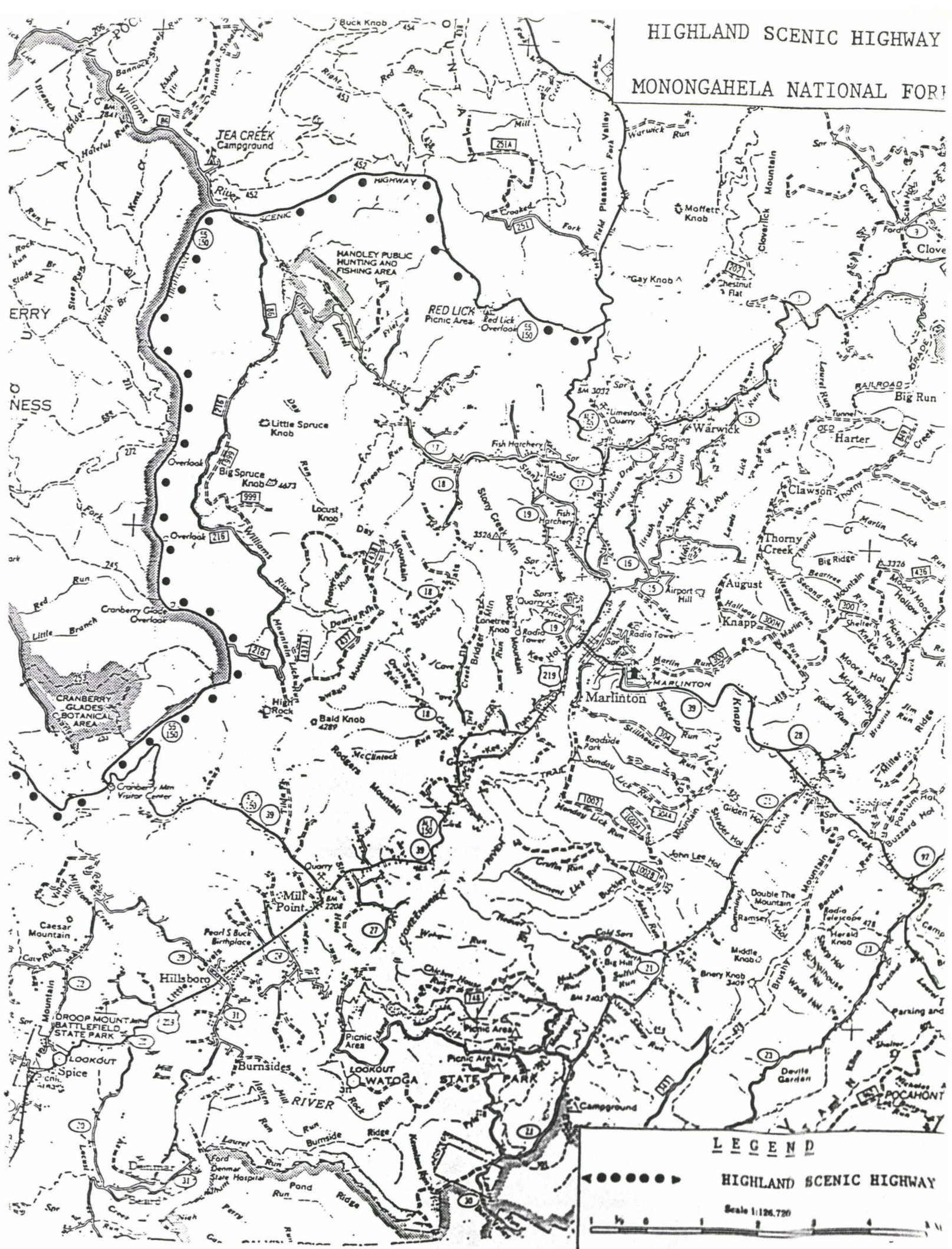
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# HIGHLAND SCENIC HIGHWAY

## MONONGAHELA NATIONAL FOREST



### LEGEND

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